THE FARMERS' CABINET,
AND
AMERICAN HERD-BOOK,
DEVOTED TO
AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

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For the Farmers' Cabinet.

Blight.

The deep interest which the subject of the Blight on Wheat must necessarily induce in the minds of reflecting agriculturists, is not abated by the very able manner in which it is handled by one or two writers in your valuable paper. The human mind does not steadily advance in any one direction; we must make good our advances in the field of science by a diligent occupation of the ground thus attained, ere we can again proceed forward. Thus, many years have now elapsed since the demonstrative treatise of Sir Joseph Banks, showing that "the blight on wheat is occasioned by the growth of a minute parasitic fungus on the leaves, stem, and glumes of the living plant." This fact, at the time of writing (1804,) was new to the agricultural community, though long known to botanists. Since the publication of this treatise, but little advance has been made in ascertaining the cause and cure of blight, mildew, &c., in wheat. There are two ways of determining a question of this character,—two modes of investigation. The one is by a careful analysis of all the facts of the case, thence deducing the general principle; the other, to originate by reflection a general principle, and test its truth by its application to facts. I confess that I am one of those speculative drones who love to assume my principles before I handle my facts; and I am always delighted when a writer presents me a reason in advance of his facts. Such has been the (to my mind) rational course of your correspondent "Vir," who advances the idea, that these diseases (mildew, smut, &c.) arise from the *essentially unhealthy growth and condition of the plant;* thereby presenting, when in conjunction with atmospheric causes, those favourable circumstances which generate the fungus plant; and that this unhealthy habit is owing to *improper culture.* Now for the appeal to facts; and in this I shall scarcely go out of the columns of the Cabinet.

The first writer on the subject to which my attention is directed, is "J. P.," (vol. 3, No. 9,) who confines his views to the atmospheric causes, and ridicules the progeny of barberry bushes, the fungus, &c. And first, though it is scarcely necessary, now, to repeat the argument, let me remark, that the moisture of the atmosphere, instead of tending to deposit the seeds of fungi, presents the only condition of its vegetation in the wheat plant. For, first, these seeds are "not much heavier than air, as every one who has trod upon a ripe puff-ball must have observed:" here Banks argues by analogy, which is certainly favourable to the comparative lightness of the parasitic plant in question. Second, "the striped appearance of the surface of a straw which may be seen by a common magnifying glass, is caused by alternate longitudinal partitions of the bark; the one imperforate, and the other furnished with one or two rows of pores or mouths, *shut in dry, open in wet weather*, and well calculated to imbibe fluid whenever the straw is damp. By these pores, it is presumed that the seeds of the fungus gain admission." Hence, while the comparative lightness of the seeds enables them to rise and float in the air, the moisture prepares the wheat for their reception. Now, either Banks (president of the Royal Society, and an eminent natural historian) forged his facts, or the rust in wheat is identical with the fungus. But not to waste time; J. P. sets in array a number of facts against the idea of a fungus growth, but has failed to perceive that while some do strongly corroborate the atmospheric doctrine, they nearly all powerfully sustain the proposition, that other anterior causes predispose the plant to the atmospheric influence; or if he have suspected it, has not plausibly set it forth.

The next writer to whom I refer, is Jacob List, (vol. 4, No. 11,) who insists that the plant is first ruptured in its vessels, "either from the *luxuriant flow of the sap* upon the tender tops of the plant being checked by cold winds, or an *unhealthy overfulness*, or some other casual obstruction." He adduces Knight's experiment of crossing different varieties of wheat, the new sort being free from rust; but why he sneers at the inference, I

cannot see, inasmuch as the well-known doctrine that crossing the breed produces a hardy progeny, favours the position he has taken; and his own experiment on poor sand and rich compost beds strengthens the same.

Vol. 5, No. 8, Vir appears, and ably sustains the position with which I set out. The theme of his essay is the Hessian-fly, but it is manifest that in the principle he advocates, the fly, mildew, smut, together with those insects which several of your correspondents have referred to, as connected with blight in pear trees, &c., all fall under the same category—as diseases arising from an unhealthy state of the plant. But Vir is able to speak for himself.

Observer, (same No.) relates his observations on certain varieties of mosses, from which I am not able to make any inference, and confirms Jacob List in his remark, that unhealthy plants are most likely to be injured by rust.

T, (vol. 5, No. 3,) is so strongly impressed with the doctrine of atmospheric causes, that he (with prodigious temerity!) even laughs—ay, and boldly, too, at an importation of Hessian flies. (Pallas spread her shield over him; I wonder he has not been eaten up before this.)

We now come to the *grit* of the controversy. Tycho Brahe takes up the cudgel *versus* Vir, and asks the question—"Perhaps he would consider botts in horses, or worms in children, as exceptions to this principle?" Vir is, however, consistent, not only with himself, but all sound physiology, whether in the medical world (proper) or natural history at large. The long discussion among medical men about miasmata, if it proved any thing, proved this, that when the constitution is in a healthy state, there is little liability to agues, fevers, or infection of any kind. Thus Vir is fortified by all sound analogy. I am so unfortunate as to have lost No. 2 of the present volume, and therein more articles on the subject.

Agricola, (vol. 5, No. 8,) espouses the doctrine of atmospheric agency, but to my surprise conceives "rust" to be a blemish arising from the exudation of the sap! Is this your old correspondent? Yet he writes well. Pomonius observes (extract from Mr. Pearson) casually, while treating of the canker in pear trees, "but as I do not approve of too good a soil in a cold climate," &c.—thus upholding the doctrine of a rank soil being favourable to blight.

Next, we have Col. Smith's theory respecting the influence of grass among wheat;—whether true in whole or in part, it goes in favour of the theory advanced by Vir.

(No. 11.) In the last No. p. 340, the editor of the Agricultural Journal attributes the animalculæ in sedgy oats to a poisonous subsoil. "The presence of the insects, we conceive to be the *effect* and not the *cause* of the disease."

I have thus hastily run over the ground heretofore occupied by your correspondents. To what conclusion do we then arrive? I trust that any of your readers who desire to arrive at correct conclusions, will reperuse carefully all that I have referred to. I think that we shall be safe in assuming the following principles. 1st, That rust, mildew or blight, together with smut, are parisitic fungi; 2d, that the immediate cause of their attack on wheat is the still, warm, moist state of the atmosphere, at the time of its appearance; 3d, that the mediate or accidental causes are moist, low meadows, (causing a stagnant atmosphere with redundant moisture), weeds, high grass, close hedges, particular exposures, poisonous subsoil, &c., &c.; and 4th, that the ultimate or original cause is *an improper rotation of crops with stimulating manures, inducing an unnatural, rank and tender condition of the wheat plant, thereby exposing it, by its increased susceptibility, to the attacks of the fly, mildew, or smut.*

I have written without the references before me, and with such brevity that I fear I shall not be understood, unless those articles are examined in connection. My object has been to show, that there is an array of evidence before your readers almost amounting to a demonstration, and much of it extracted from adverse writers, that these principles are correct. If so, the next step will be, to devise such a system of crops and mode of culture as will best fulfil the indications.

And now for a little speculation. I have been but two years on the farm I now occupy, and it is a soil with which I had not been familiar: I suspect it is not the most favourable to wheat. And here, in parenthesis, let me remark, that the most favourable soil in the range of my observation (Chester co.) is the mica slate range of hills, south of the great valley, which is seldom found so rich and rank, even with the aid of raw manure, as to spoil a wheat crop. The rotation of crops which I have devised is this, counting, as we usually do, from the grass crop. 1st year, wheat, turnips; 2d, corn; 3d, oats; 4th, roots—potatoes, beets, ruta baga; 5th, barley, with clover seed; 6th and 7th, clover, mowing first and second crops, and manuring through the first or second winter, and then a crop of wheat from the clover lay. According to the English mode of cropping, the root crop would be mentioned 1st,—the basis of the system,—being the manured, and the cleansing crop. I should omit oats, but for the extra labour of hauling off the

corn-stalks to prepare it for the root crop.* The roots always well manured: spare manure or lime to be allowed the clover lay, as an additional preparation for wheat: lime probably the best. On this system, I shall reserve sufficient meadow for both horse-hay and pasture, reducing thereby the quantity of arable, but gaining in the number, and I think probable productiveness, of my crops. Excuse this tedious epistle.

S.

Chester co., June 19th, 1841.

For the Farmers' Cabinet.

Cultivation of Flax and the Manufacture of Linseed Oil.

Mr. Editor,—The article on this subject at the head of your number for April contains food for the most serious reflection. It is indeed next to insanity that we are so careless and indifferent as to increasing the cultivation of the numerous articles uniformly imported into this country, by wholesale, which could be grown by us with the greatest ease and to large profit—and at a time, too, when our markets are glutted with corn and grain and other articles, "which every one cultivates," and while all are complaining that prices do not pay expenses.

Now, in the article of flax alone, could be found ample resource for many of our wants; the manufacture of oil from the seed, and linen from the plant, would give employment to thousands, and be the means of adding, in a fourfold degree, to our means of subsistence. We had need indeed to cultivate a greater variety of crops; and those which would afford employment to our community in manufacturing, ought to be preferred; nor can I think of any that is so likely to answer this double purpose, as that of flax.

Since writing the above, I have seen an article on this subject in the Western Farmer, a very excellent paper, published at Detroit, which gives the pleasing intelligence, that the cultivation of flax has commenced in Michigan, and an oil-mill has already been erected in the village of Marshall, capable of manufacturing 700 barrels of linseed oil, per annum—that quantity being about requisite for the present supply of the state. There are many excellent observations contained in the account, some of which I wish you would transplant into your pages, for the purpose of jogging our memories in this section of country, where an addition is needed to our present resources, as much as elsewhere; and none is seemingly so well adapted to our wants; for the refuse of the crushing-mill goes to make beef and mutton and *muck*—all legitimate to the pursuits of the farmer.

"The large quantity of linseed oil brought into this state, would naturally suggest the expediency of its home manufacture: the general custom of erecting buildings of wood requires a very large application of paint—and were the supply raised amongst us, the country would put on a new garb of thrift and comfort, and we should be saved the remittance of a large sum of money to the east, for what we could as well supply at home. And how can the labour of the farmer be more wisely expended than in the cultivation of flax? The greater the variety of staple articles a state produces, the less will its business and prosperity be affected by a commercial revulsion or monetary pressure; and it would be well to have the industry of a people so distributed, that some of the many departments of its action will remain undisturbed and flourishing, amidst those changes which always have characterised, and always *will* characterise the business affairs of the United States. Michigan has suffered severely in the late depression of prices and stagnation of business, because we depended upon WHEAT so exclusively; and that article, by a long peace in Europe and plentiful harvests in both countries, has greatly depreciated. About two years ago, the culture of flax was commenced on a small scale; but last fall, at least 3000 bushels of seed were raised—and the chief inducement has been, the disposition of it which the erection of a mill enables the farmer to make; and the crop is considered more profitable than wheat or any other grain, at the prices they have brought, or are likely to bring for a great while to come. The oil-cake from this mill is confessedly most valuable to the farmer, and can be furnished plentifully, when his interest is involved in the increase and improvement of his stock of cattle; for, that some counties of the state will soon become noted as grazing-lands, *is certain*, and the feeding of oil-cake is generally commended for animals, destined either for the stall or for the dairy.

"Here, also, the castor-oil is manufactured very pure, and in all respects of excellent quality: preparations are making for a large supply of the bean for crushing, and the cheapness at which the pure oil can be afforded, will recommend it as an item of importance in all families. I regard our Oil-mill, therefore, as an INSTITUTION of no ordinary consequence, and mark its erection as an important event in the developement of the resources of our state." P. B. C.

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* Our valued correspondent is referred to p. 73, of the present volume of the Cabinet, for the drawing of a machine that has been in use in Jersey for many years for removing corn from the fields. Will he turn to it? Ed.

For the Farmers' Cabinet.

Improved System—Rotation of Crops.

Mr. Editor,—Although my time and attention have already been sufficiently taxed in commenting on articles contained in the April No. of the "Farmers' Cabinet," yet I must say a word, by way of reply, to our agricultural friend who hails "all the way" from Hannibal, Missouri. I allude to John M. Johnson, who requests information under the above head, and is not too *modest* to enrol his real name on our list, that he may be addressed, should occasion require.

The very best rotation of crops, is a subject vastly more important than any other one connected with the farming business. As such, it has been for years to me a matter of deep anxiety and interest, the object being, to digest a system, which shall in its detail, yield the greatest immediate return, and ultimately improve the fertility of the soil;—to be an augmenting and ameliorating system—a desideratum to farmers of more intrinsic value than a remedy for the Hessian fly and "cause and remedy" for mildew combined; because this system will prove, in its very operation, the best cure for all these evils, of any yet known. Farmers may expatiate as they please, about the cause and effect of all the ills that wheat is "heir to," yet in the main, the whole may be ascribed to a bad, exhausting, and depleting system of rotation. Take the seasons as they come, and is not the best grain found always on the richest ground, cultivation in other respects corresponding?

The inquiring farmer of Missouri, proposes to lay off his farm in eight fields; so I shall submit a system—that has cost some labour and experience—in tabular form; and which, if adopted in a proper spirit, may be enclosed in a frame for convenient reference. It will be observed, the ruinous practice of "wheat after wheat" is entirely obviated; I, *too, practise* what I here *preach.*

	Field No. 1.	Field No. 2.	Field No. 3.	Field No. 4.	Field No. 5.	Field No. 6.	Field No. 7.	Field No. 8.
1st Year	Wheat	Rye	Wheat	Clover	Corn	Wheat	Clover	Oats
2d "	Rye	Clover	Corn	Wheat	Oats	Clover	Wheat	Wheat
3d "	Clover	Wheat	Oats	Rye	Wheat	Wheat	Corn	Clover
4th "	Wheat	Corn	Wheat	Clover	Clover	Rye	Oats	Wheat
5th "	Corn	Oats	Clover	Wheat	Wheat	Clover	Wheat	Rye
6th "	Oats	Wheat	Wheat	Corn	Rye	Wheat	Clover	Clover
7th "	Wheat	Clover	Rye	Oats	Clover	Corn	Wheat	Wheat
8th "	Clover	Wheat	Clover	Wheat	Wheat	Oats	Rye	Corn

Where there is not sufficient available manure, the field of oats may be fallow; but if the means of accumulating manure, on a good farm, be well husbanded, which can be done by compost to any extent, the wheat-stubble should and *can* be manured for corn, and the oat-stubble also for wheat. The second crop of clover is ploughed under, to manure the wheat. Corn, oats and rye, all exhausting crops, it will be observed, can only occupy each field once in eight years, while each field is twice well manured with stable manure in the same term of years, in addition to the clover ploughed under. Barley may be substituted wholly or in part for oats. Being partial to the permanent pasture afforded by our native green grass, I keep an additional enclosure for that purpose, and mow both clover-fields, which, in addition to the corn-fodder, will winter a large stock, using the straw only for litter. Although formerly partial to timothy for hay, I would not now tolerate it, under the above system. My reasons are plain; clover hay made on the plan of curing in the cock (*or shade,*) instead of scattering it out to the breeze, sun, dew and rain, I prefer to timothy hay for all purposes; while the former, belonging as it does to the leguminous class of plants, is ameliorating, and a fertilizer, the latter being of the tuberous rooted or culmiferous class of plants, exhausting the soil by feeding on the specific food of wheat, is a sterilizer. I beg to ask one question of Mr. Johnson—why does he insist on the cultivation of roots for stock in a soil so exuberant that 100 bushels corn may be raised to the acre, and with less expense and trouble? Would the farmers of Europe, who occupy the *beet zone,* and raise beets, turnips, &c., more nutritious than we can by odds, "touch them with a ten-foot pole," as food for stock, if their climate would mature corn? Well, I myself have tried roots, and would not condemn them wholly; but I contend, the acre of ground forced by manure and culture, producing a good crop of beets, will, under like circumstances, produce an equal, if not greater amount of solid nutriment, in the shape of corn. If Mr. Johnson *must* experiment with beets, they may be cultivated in his corn-field, without obstructing the above system. But mark, if the system of rotation above described, on account of furnishing the best food for stock, summer and winter, and *insuring* good crops, while it improves the soil, does not meet general favour, long after the present mania and fever for beet culture shall have collapsed, to be

noticed only among the things "that have been." Perhaps I ought to add, that it is necessary on some farms, to subject parts of the land to tillage crops, to clean and clear them of binding grass before adopting this system, which was my case: it must be remembered that lime is a great auxiliary to this,—the same as to other systems.

And now, Mr. Editor, aware of a partiality to beet culture for stock, I shall look out for a censorial notice from some ready pen; nevertheless, I shall not be *easily* driven from my ground.

W. Penn Kinzer.

Springlawn Farm,
Pequea, Lancaster Co., May, 1841.

For the Farmers' Cabinet.

Curing of Bacon.

The Editor of the Southern Planter says, in his number for May, that everybody in Virginia knows how to make good bacon, and if any of his northern friends will cross the Potomac, he will satisfy them that the art is confined to the south. What a happy law of our nature it is, that we are all pretty sure to be endowed with enough of self-complacency to make us contented with our own ways! But did the "Planter" ever cross the Delaware—did he ever eat of a real Jersey ham, fed, cured, and cooked in old Gloucester? Why, there is as much difference between the rich delicacy of its taste and flavour and those of a Virginia ham, as there is between veal cutlet and fried sturgeon—between a young capon and a five year old rooster! Did he ever taste real *Jersey pork?* We do not go the whole hog here, in relation to bacon, as they do down south; they smoke all—we cure the side differently from the ham, shoulder and jowl; these we smoke, the *side* we eat as pork. I remember being once very seriously asked, if it was true that we Jerseymen ate a part of our swine's flesh without smoking? and the answer was received with incredulity! But this is a digression.

I started, to give friend Botts, through the Cabinet, the Jersey mode of curing hams; and if it is once properly tried, he may lay that of his correspondent "D" quietly on the shelf; but as "D's" receipt will accompany this, the readers of the Cabinet can choose between them. The Jersey mode is—to every 80 lbs. of hams, take 4 ounces brown sugar, 3 ounces saltpetre, and one pint of fine salt; pulverize and mix them thoroughly; rub the hams well, and lay them on boards for 36 or 48 hours; then pack them in casks, adding two quarts fine salt to every 80 lbs. of hams. In 15 days they may be hung up to smoke.

The Virginia mode is,—"Put to each joint a large tea-spoon-full of saltpetre; rub each piece well with salt on both sides, and pack them away in a hogshead with holes at the bottom, to let off the brine; let them remain for five or six weeks; then take out, brush off the salt, rub well with hickory ashes, and hang each piece in the smoke-house so as not to touch each other. Smoke 8 or 10 days, successively, and occasionally in damp weather; use small chips, but avoid pine." In my opinion, small chips of green hickory or apple trees, form the best material for smoking; and the best mode of keeping through summer is to tie up in bags with a little hay on the flesh side, suspending them out of the way of rats and mice.

If the "Planter" would come over about new-year's, we should be able to show him some real Jersey hogs—like those thirty which were slaughtered last year at the Burlington County almshouse, averaging over 400 lbs. each; or those of which Homer Eachus speaks in the number of the Cabinet for May, one weighing 966½ lbs. after being neatly butchered, and the three averaging 925 lbs., which, although not exactly what we are in the habit of calling "lovely creatures," yet well deserve this special notice.

T. Z.

Time of Harvesting.

I commence cutting my wheat while it is still green, when I find the kernel is out of the milk and about as hard as dough, which might be known by pressing it between the fingers. I do not let it lie on the ground, but bind it in very small sheaves and set them up in stocks, in form of pairs of rafters, the buts far apart, and place two sheaves upon the top for protection. In this way it dries very quick, the sap remaining in the straw affording sufficient nourishment to the kernel to prevent it from shrinking. Thus I find the grain to retain all its farinaceous properties, and the straw makes superior fodder for cattle, because it contains all the sap that the wheat does not absorb. Wheat cured in this way thrashes easily, and will not shell out while carrying to the barn. We are not aware how green the crop may be cut, and what a saving is to be effected in a time of mildews by so doing, both the crop and straw being oftentimes preserved from total ruin.—*Fuller.*

Neither wet lands, nor stiff clays, nor very poor grounds, will repay by their crops the labour required on a crop of corn. Better buy corn, and bestow the labour on other objects.

For the Farmers' Cabinet.

On Top-Dressing.

Mr. Editor,—When I first read the article at page 84 of the present volume of the Cabinet, on Top-dressing, I thought indeed that it was all *theori*, as my friend and neighbour Parnell calls it, and was astonished that any one could advocate a doctrine so foreign to all our past experience, and in the very teeth of every work on agriculture, all of which inculcate the absolute necessity of keeping our dunghills covered with earth, to prevent the escape of the gases, and the loss of about one-half the value of the manure; and upon spreading, to turn it in immediately, for the same best of all reasons: and, as I say, I did heartily despise the notion of top-dressing, much as your correspondent A, had to say in its behalf. This was in the autumn of last year, and up to February of the present spring, I had not changed one jot of my opinion or lost an atom of my prejudice; but, turning again by chance to the article, as I sat by the fire-side one cold and comfortless evening, when I had leisure to examine and reflect upon what he had advanced five months before, a thought struck me, that I could try for myself the truth or error of the scheme, and that I ought to do so, for the benefit of those who had it not in their power to make the experiment so easily as I could; and I therefore came to the resolution to give the thing a fair trial and report upon it in the Cabinet, which I am now prepared to do.

In the upper part of one of my fields I have a gravelly bank with scarcely two inches of mould upon it; there the crop, of whatever kind, had always been poor, even after the most careful cultivation—the hungry subsoil permitting whatever dressing was buried in it, quickly to pass away: I therefore ploughed it as deep as I was able, and immediately sowed upon it a portion of oats; I planted Lima beans on another portion, as also some of the emur, mentioned in the late pages of the Cabinet, and immediately covered the surface with the sweepings of the streets, to the thickness of an inch or an inch and a half, and "said nothing to nobody," as I was fearful my neighbours would have enjoyed a laugh at my expense, had they seen me expose a coat of manure "to be dissipated by the winds of heaven," &c. This was late in the month of April, and on this, the 20th day of June, I find upon this hitherto worthless portion of my land, crops that far surpass any that I have ever grown on land of ten times its value, and which have borne the late drought without flinching in the least. On turning up the dung, I find the earth underneath always moist—it seems to operate as a sponge, to hold the evaporation which rises from the subsoil, and to prevent its escape; and the weeds which were indigenous to the soil, appear not to have vegetated, but are kept in abeyance by the heavy crops with which the ground is covered. I need not say that I visit very often my experimental plot, and am more and more convinced of the superior value of top-dressing, on such soils at least, and am free to confess that my mind is now open to conviction. On the most careful examination, I cannot perceive that the coat of manure is at all lessened in bulk by either the rains or exposure; but I *can* perceive that a shower, which carries the water impregnated with the dung to the roots of the plants, causes them to start away in a most remarkable manner—indeed the immediate effect is surprising. I am, therefore, so far as the present experiment has taught me, convinced of the great advantage of top-dressing: will others try it? I am preparing to sow beet after rye, and shall cover the rows where the seeds are sown, with well-rotted street manure as a top-dressing, instead of burying it in the rows, as heretofore directed, and have no fear of obtaining a good crop.

John Kinson.

To the Editor of the Farmers' Cabinet.

Subsoil Ploughing.

I have for a number of years been engaged in the pursuits of agriculture, but being taught in the "old school," to believe that any variation from the beaten track of the farmers of Chester county, two-score years ago, was any thing but commendable—namely, one undeviating course, first a crop of corn, then oats, then wheat and grasses, with the application of what little manure chanced to be lodged in the barn-yard during the winter season,—these, with a few garden vegetables, have seemed to embrace our whole round of farming operations, ever since.

But having recently become a reader of the Farmers' Cabinet, and witnessed the beneficial results produced by the experiments made and making, both in the use of improved implements of husbandry, and in the different and much improved modes of culture described and recommended therein, I have determined to rid myself of those prejudices under which I have been labouring, and endeavour to profit by the experience and experiments of the agriculturists of the *present day*. And having read in a late number of the Cabinet, an article on gardening, in which the writer earnestly recommends a system of subsoil cultivation, and points out the very beneficial results which would be sure to follow therefrom; and having had but poor success myself in gardening

the past year, I determined to try the project, and accordingly, about the middle of February, applied a good coat of manure to a piece of land designed for the experiment: here it lay until the middle of March, when I raked off the longest and driest part, and commenced digging a trench about seven inches deep, the whole length of the land—throwing off the surface-soil, as directed. I then dug up the bottom of the trench a good depth, replacing the subsoil—being careful not to let any part of it mix with the top-soil; the manure was then raked in on the subsoil, and another trench formed by throwing the surface-soil on the manure, and so on, until the whole was completed. The land was then planted and sown with garden vegetables, each in its proper season, and my crops will now compare with the best in the neighbourhood. My success is complete, and beyond my most sanguine expectations.

Then, since "like causes produce like effects," is it not reasonable to expect, that if a corresponding system of subsoil ploughing were adopted on the farm, the same beneficial results would follow, inasmuch as the fibrous roots of all the crops that are cultivated in our fields penetrate the earth to a far greater depth than what is moved by our ordinary mode of ploughing? But by what mode this is to be accomplished, I must leave to your enlightened readers, who by their communications on this interesting subject, would confer a favour on

R. W.

Chester County, Pa., June 10th, 1841.

We would refer our correspondent to the engraving of the Deanston Plough, in our last, and point his attention to the very interesting account which accompanies it, of the success attending the introduction of subsoil ploughing, by Mr. E. Phinney, of Lexington.

Ed.

Large Milker.

John Jones, Esq., of the Wheatland Farm, Delaware state, writes as follows to the corresponding secretary of St. George's Agricultural Society.

"Dear sir,—My cow, *Yellow Flower*, out of a common country cow, 5 years old, stands barely 12 hands in height, and is estimated to weigh, if slaughtered, 350 lbs. She was sired by my half Devon and Durham bull, a calf out of the Fort Delaware cow. The butter of our dairy, averaging about 90 lbs. a week before she came in, was by her so much increased, that we were resolved to set her milk apart for a week, to see how near she would come to the much-talked-of cows, *Blossom* and *Dairymaid*. On the 4th inst., commenced with 26½ quarts, by milking morning, noon and evening; on the 5th, 26 quarts. The weather being very warm—thermometer at 90 to 93 degrees—it operated so much upon the cellar in which the milk was kept, that to continue the experiment longer would have been to do injustice to the cow—we therefore closed with the second day; the 13⅛ gallons of milk yielding at the rate of 15¾ lbs. of butter per week. Every thing considered, and without boasting, I think *Yellow Flower* the best cow in Delaware: she was, at the time, in the third week of her milking, and grazed in common with a large stock, on land *that ten years ago was dull sale at* $10 *per acre.*"

There are others of our friends who possess large milkers. Would they send us their accounts for record in the pages of the Cabinet?—Ed.

For the Farmers' Cabinet.

The Farmers' Cabinet.

Mr. Editor,—Although I am not the possessor of many hundred square perches of land, *I take the Cabinet*, and the owner of as many acres is not more conversant with its contents, nor has he oftener the opportunity to put into practice its recommendations or to witness the results; for by the time I have visited in a morning my horse and cow—both in the singular number and of the feminine gender—my hog's stye, my poultry yard and hen coops, my very small conservatory and little garden, I seem as completely in the thick of it as any one could desire, and am often impressed with the observation, "it is all by comparison" whether our possessions consist of money, land or house—it is the mind which constitutes the limit, and a very small lot of either is enough, if *that* be contented. But be his possessions great or small, I wonder that every one does not *take the Cabinet!* In it, I almost fancy I can find all I seek for; and the respectable and regular manner in which it is conducted, the multifarious matter with which its pages are filled, the great proportion of original articles they contain, and the valuable and judicious selections which are given; the exquisite and sparkling gems of poetry with which they are adorned, together with the admirable portraits of distinct breeds of animals so faithfully drawn, and so exquisitely engraved by one of the most promising young artists of the day, render it, assuredly, the best and cheapest of all our periodicals; and I would respectfully urge every one whose possessions embrace but a yard and a flower-plot, to take the Cabinet. I find the present number completes the 5th vol. of that work; there is, therefore, an excellent opportunity to commence with the 6th volume, the first No. of which may be expected on the 15th of Au-

gust, as on that day, monthly, have I received my numbers for the past year with the regularity of clock-work.

But there is one subject noticed in the Cabinet, which above all others has claimed my serious regard and attention; for by it a field of reflection has been opened which to me is of more value than all my small possessions—it is the view taken of the *cause* and *effect* of blight, and by it, it does indeed appear that we have been in the habit of mistaking the one for the other. It was long before I could prevail upon myself to believe that the animalculæ which cover the rose trees and other plants in my garden, were not the *cause* of blight; I thought that view of the case as plain as that the *sun goes round the earth*, and for the same reason—it was palpable to my own eyes! The papers of "Vir" and other writers in the Cabinet have, however, opened a new field of vision, and I see clearly that I have hitherto mistaken the *effect* for the *cause*. I can now create a blight amongst my potted plants whenever I choose, according to the mode practised by J. Lawrence, by placing them in a cold, shady draught of wind, when it blows from the east: this will insure me a full crop of animalculæ in a very short time, and furnish a lecture worth remembering. During the late very hot days (about the 4th of the present month) I found that my geraniums in pots suffered from the great heat of the sun to which they were exposed in my yard; I therefore removed the stand upon which they are placed, to the opposite side, where the sun never shines, and a cool temperature is kept up by the air passing from a court leading therefrom; for finding this a peculiarly grateful situation as a retreat for myself during the scorching time of the day, I judged a removal thither would be as much to their enjoyment as my own: but judge of my surprise, when on examination I found their young shoots full of life! the aphides, not much larger than a grain of sand, vigorous, and bringing forth young by dozens in a viviparous state! And then the question struck me, to what purpose had I read the Cabinet, that I had not foreseen the consequence of such an exposure to atmospherical influence? I turned to its pages and read all the papers relating to that interesting subject, when I became convinced of the correct view of the system, as well as with the means of *correcting* the evil itself; I therefore removed the stand to its accustomed position; washed the plants with warm water, and sprinkled them with water almost daily as soon as the sun had left them and before the coolness of the evening air: in a few days they were quite free from blight, "no one knowing which way they went, or what had become of them," and will no doubt remain so. Let me turn the attention of your readers to an article at p. 300 of the Cabinet for April, which seems to set the question for ever at rest; it is under the caption of "Blight an Effect." I see it has been reprinted in the Public Ledger within these few days past.

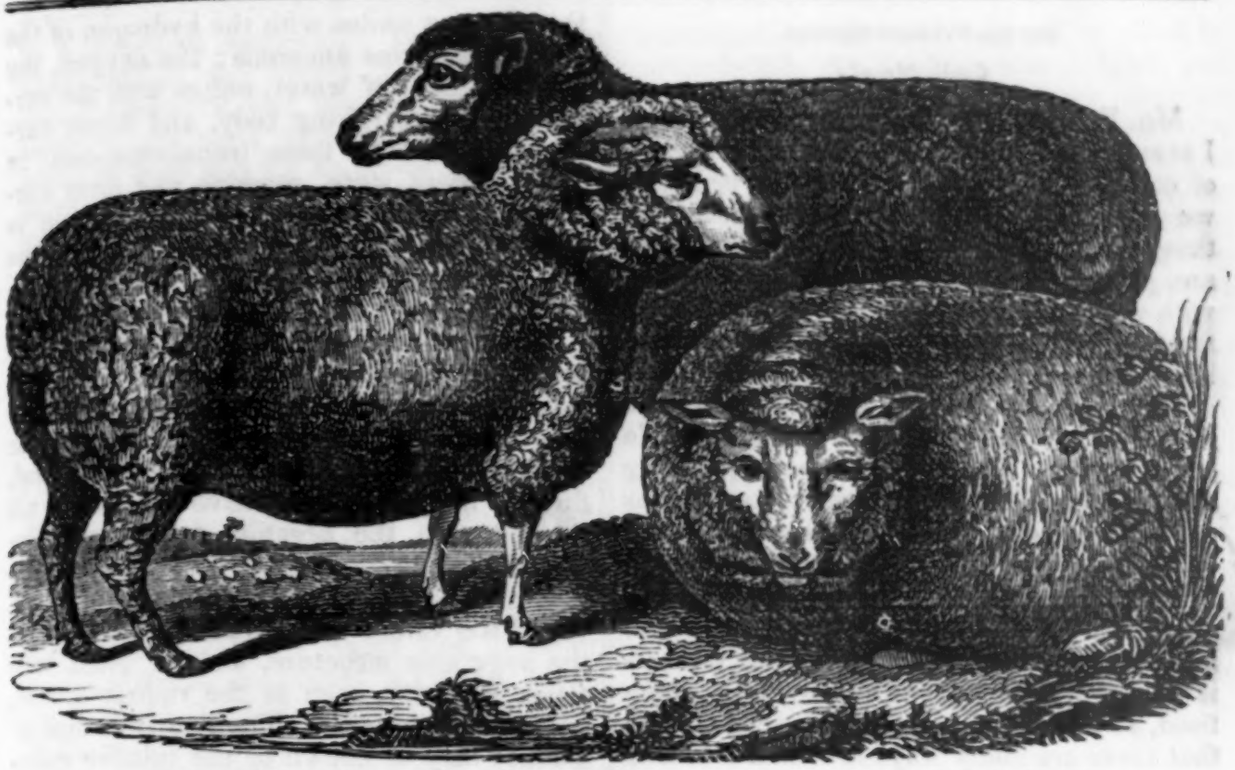
In my out-door family of animals and vegetables, I find a constant demand for the information which I derive from the pages of the Cabinet. I *prevent* botts in my horse by "salting her," as it is termed, not merely two or three times a week, but by placing a boxful by the side of her, out of which she may help herself:—would it not be strange to restrict *ourselves* to the tri-weekly use of this necessary? She was, some time since, seized with the colic—I turned to the pages of the Cabinet, and was soon furnished with the means of a perfect cure in a very short time; while saddle-galls and greased heels dare not show themselves in a stable where solutions of lead and copper are kept ready prepared for use. My cow was afflicted with the low or foot ail, and a touch of the hollow horn,—the Cabinet furnished me with the means of cure, as well as a *straw rope* to relieve her when she became hoven from feeding too greedily on cut clover—which alone was worth more than the subscription price of the Cabinet for twenty years to come:—while the garget, milk-fever, and many other kinds of fevers have been banished by the means recommended in the Cabinet; as I always aim to "TREAT MY BRUTES LIKE MEN."

And then come my fowls with the pip, and the cure for it; with directions for rearing male or female chickens at will; the best form of a "henery," and the most approved mode of preparing the food for its inhabitants—pointing out the superiority of cooked food and the economy of feeding it out; the most approved management of bees; the improved mode of curing hams, and how to cook a beef-steak "à la Jersey," as well as how to raise mutton hams by stall-feeding the sheep—and which I intend to practise the next winter. In short, I find in the Cabinet, as I have already said, about all I look for, and I wish its circulation may equal its deserts. Inclosed is the amount of my subscription for the 6th volume.

Z.

June 25th, 1841.

Some entertain a notion that it is prejudicial to stir the soil among corn in dry weather, and that weeds prevent the evaporation of moisture by a hot sun—but the reverse is the fact. The exhaustion of moisture by a plant, is in the ratio of the surface of its leaves and stalks presented to the sun and air.



PORTRAITS OF LORD WESTERN'S ANGLO-MERINO SHEEP.

Lord Western to the Editor of "The Farmers' Magazine."

"Mr. Editor,—In consequence of the desire which you represent to have been expressed by a number of persons to have some account of the sheep I exhibited at Smithfield at the last show, and the portraits of which you have given in your Magazine, I will endeavour, through the medium of its pages, to give some information to the public on the subject. It is generally known that they are cross-bred sheep, between the merino and English long-wool sheep of different descriptions; but before I proceed farther, I will remind you of their weights and ages, and give you an extract from a letter addressed to me by Mr. Allen, of South Audley street, the butcher who purchased them: he says, "With respect to the sheep, I am happy to inform you that they proved better than my best opinion led me to expect; in fact, I must candidly confess that I have never seen any thing that could surpass them when slaughtered." Their weights were—

	s.	*lb.*	*s.*	*lb.*		*s.*	*lb.*	*s.*	*lb.*		*s.*	*lb.*	*s.*	*lb.*	
Shearlings, No. 1,	16	7—fat,	2	0	No. 2,	15	2—fat,	1	6¼	No. 3,	16	4—fat,	2	5	8 lbs. to the
Two Shears, No. 1,	17	1—fat,	2	3	No. 2,	17	2—fat,	2	3	No. 3,	16	5—fat,	3	2¼	stone.

"I shall now lay before you an account of a *pure merino* fat wether, sold to and slaughtered by Mr. Barwell, of Witham, in this county—and which I can best do, by the insertion of his letter to me.

"'My Lord,—Having been the purchaser of the three-year-old pure merino wether sheep, bred and fed by you on your estate at Kelvedon, which was exhibited at the last Christmas show at Chelmsford, I take the liberty of laying before you, for your Lordship's information, and the information of agriculturists and graziers generally, the opinion of the judges relative thereto, as also my own statement as to the weight of the carcass, fat, &c. I am aware that a challenge had been thrown out by you to show a merino wether against any of any other breed, on the condition that size should not pass for merit, and that Mr. Hicks took it up, and produced a Southdown wether, supposed to weigh 20 stones, (160 lbs.); but the judges decided that the merino was a superior handling sheep, being exceedingly good in all points, remarkably thick on the loin and back, and square at the leg and wide at the brisket. The constitution of the sheep must have been remarkably good to have carried a fleece of *three years' growth of wool, weighing 32 pounds*, twelve inches length in staple, and of beautiful and fine quality: the improvement of the carcass is not considered to have deteriorated the wool in the least.

"'The carcass of this sheep, inside and out, was as good as I ever had; and in point of colour, the merinos carry, generally, a brighter red and white than any other breed. Weight of carcass, 14 stones; fat and caul, 12 lbs.; gut fat, 8 lbs.; and the kidneys remarkably large.'

"It is very important to notice especially, the wonderful proofs of constitution which this animal displayed; it is true he was high fed and housed, but to stand under a three-years' fleece of wool, and to turn out of it quite fat, and at the Christmas following as fat in all his points as any sheep could well be, is, under any circumstances, very extraordinary and well worthy of attention. I have had opportunity of knowing that the merino breed of sheep would be of great value to the country, if they were cultivated as they ought to be.

Western."

For the Farmers' Cabinet.

Cob Meal.

Mr. Editor,—On a late visit to a friend, I saw in his barn about two hundred bushels of cobs of corn! How long will it be before we are brought to understand "the nature of things, and perceive their fitness?" here we are, giving our stock clean corn-meal mixed with wheat-bran, and throwing aside the cobs for fuel, or *for nothing*, although they have been found of three or four times the value of bran, for the purpose of mixing with the meal; a perfectly natural mixture, made without extra labour, or expense, adding about one-half to the quantity of our means of feeding, saving the labour of shelling, and the cost of bran! the cob being suitable as food for hogs, as for any other species of stock, and even for poultry. And when the importance of cooking food for our animals is as well understood, and as universally practised, *as cooking for ourselves*, we shall find that there are many ways in which a farmer can make up for a deficiency in the state of the markets—which all at present so feelingly deplore—without going back to the burning of *pine knots* to save candles! Suppose each bushel of ground corn-cobs to be worth but 12½ cents, what an addition will they prove to the fodder of our corn-crop, and our resources in a long and trying winter! Many farmers grow six or eight hundred bushels of corn, and supposing that the cob is equal in bulk to half that quantity, here are no less than three or four hundred bushels of fodder additional, procured without labour or expense of any kind, save only the very small charge for grinding. Every mill should be furnished with the means of grinding the cob with the corn, and the *saving* to be derived from feeding these, and the *addition* to the dung-hill, would form an item in our accounts of considerable moment in these hard times. Is it not a little strange that so small account is taken of the means which are so immediately in our power to add to our resources! J. A.

On preparing Night-soil.

Sir,—I observed a few days ago, in one of your late periodicals, an inquiry, by a correspondent, for the best method of preparing night-soil for manure. He said "he had mixed it with lime, and a very strong smell of ammonia was evolved, whereby he feared the efficacy of the manure might be impaired." These conclusions are perfectly correct; its efficacy as organic manure would be destroyed by the use of lime.

When an organic body containing nitrogen undergoes putrefaction, and moisture present, the nitrogen unites with the hydrogen of the water, and forms ammonia; the oxygen, the other element of water, unites with the carbon of the putrifying body, and forms carbonic acid; both these transformations, in their nascent state, combine and form carbonate of ammonia, a volatile salt, which is always evaporating with water, as long as the decomposition continues. Such invariably takes place in nitrogenous bodies.

When lime is added to a body holding carbonate of ammonia in solution, as in night-soil, the ammoniacal salt is decomposed; the lime robs it of its carbonic acid, and caustic ammonia, a still more volatile compound, flies off in gas: thus we have got rid of all the nitrogen the organic compound contained.

Organic manure, without nitrogen, is of very little value. It pervades every part of the vegetable structure, and no plant will attain maturity, even in the richest mould, without its presence. The relative value of manure may be known by the relative quantity of nitrogen it contains. There does not appear to be any manure so rich in nitrogen as human excrement (except bone manure, which contains upwards of 30 per cent. of gelatine in its interstices); so much so, that according to the analyses of Macaire and Marcet, 100 parts of human urine are equal to 1300 parts of fresh dung of the horse, 600 parts of the cow, and 450 parts of the urine of the horse. Hence it is evident that it would be of much importance if none of the human excrements were lost, especially when we consider that with every pound of urine, a pound of wheat might be produced. Now I would suggest to your correspondent the best and most economical method I know of preserving unimpaired the most valuable element in night-soil, which is as follows: to every 100 lbs. of night-soil, add 7 lbs. of sulphate of lime (gypsum) in powder: a double decomposition will ensue, and the result will be, instead of sulphate of lime and carbonate of ammonia, carbonate of lime and sulphate of ammonia; the latter a soluble salt which cannot be volatilized. It might now be mixed with other compost, or dried any way thought proper, and applied to the roots of the vegetable, to be again transformed into bread, butter, cheese, &c.

Chloride of calcium, sulphuric or muriatic acid, substances of low price, would completely neutralize the urine, converting its ammonia into salts which possess no volatility.

I would also suggest, that if the floors of stables be strewed from time to time, with a little sulphate of lime, they will lose all their offensive smell, and none of the ammonia which forms can be lost, but retained

in a condition serviceable as manure. In close stables, the horses' health would be better preserved, and they would not be so liable to get blind as now: 1¾ lbs. of sulphate of lime will fix as much ammonia as is produced by 100 lbs. of horses' urine. I am, sir, your obedient servant,

GREGORY BRABYN.

Wanebride, Nov. 14.

London Farmers' Magazine.

To the Editor of the Farmers' Cabinet.

On Stock Breeding.

SIR,—I once owned a favourite mare, from which I had a great desire to obtain a colt, as I considered her peculiarly adapted to the purpose of rearing that most valuable of all stock, the *roadster*, or horse of all work. After repeated trials, which had uniformly failed, a friend suggested a cross with the jack, which he had known to be attended with success in such cases, and by this means I did indeed obtain a fine mule, but from the use of the best horses in the country, I was ever after presented with the most mulish brutes ever beheld—they might properly be denominated a cross between the mule and the mare, they were so degenerated both in appearance and disposition.

This is a most curious and interesting subject for consideration; we are every day witnessing the correctness of Jacob's Theory, concerning the peeled rods; and although shocked with the injustice of his conduct, even at this day we are constrained to admit that there is "something in it," as folks say. And to this cause is, I have no doubt, to be attributed the number of white calves from coloured parents, and other wonderful and very curious phenomena which we witness daily, all tending to show the strength and power of *sympathy*, and the truth of the position assumed, that "a mare having once brought a mule, will ever after produce a mulish progeny."

The earl of Morton's fine Arabian mare was crossed with the quagga—a kind of zebra—the offspring partook strongly of the character of the sire, and when the mare was afterwards put to the pure-bred Arabian, her two next foals continued to exhibit the distinctive features of the quagga in a very considerable degree. And other remarkable instances are recorded in Youat's work on Cattle—a Mr. Mustard, says, "one of his cows chanced to come into season while pasturing on a field, which was bounded by that of one of his neighbours, out of which field an ox jumped and went with the cow until she was brought home to the bull—the ox was white, with black spots and *horned*. Mr. Mustard had not a horned beast in his possession, nor one with any white about it, nevertheless, the produce was a *black and white calf, with horns!* Another instance still more remarkable is, a dairy cow of the Ayrshire breed, in colour red and white, was allowed to pasture with the pure-bred Keillor stock, which were perfectly black and horn-less; in the first experiment, from pure black bulls and cows, there appeared *three* red and white calves, and on the second trial two of the calves were of mixed colours! but since that time, care has been taken to have all the animals upon the farm, down to the pigs and poultry, of a black colour." I understand that Mr. Gowen's famous cow Dairy-maid, has a white calf the present year, by the Prince of Wales—both roans—but the last year, Dairy-maid was put to Colostra, who was white, when she brought a white calf, and it is probable that her next year's calf will be white also, unless a bull of a more decided colour is used.

J. R. C.

For the Farmers' Cabinet.

Green Crops for Turning Down.

MR. EDITOR,—We hear much of sowing crops for the purpose of ploughing them down while green. Did it ever occur to the minds of our farmers how many and what heavy "green crops" may be cut from their rushy bottoms, their ditches, their woods; but above all, from the margins of their rivers and creeks; and which, if buried in the bottom of their furrows, would ferment and become as valuable manure as any that could be grown for the purpose at the expense of ploughing and sowing, and which would enable them to mow these for their cattle, and thus obtain from them an addition to their cattle keep, instead of robbing them of so many acres of fodder? There is upon record an account of an experiment on growing potatoes, where it was found that a single cabbage-leaf laid on every set of the potatoes while planting, produced as large a crop as was taken from the rows dressed with stable manure. Then what would be the result of a thick covering of water-lilies, reeds, or the rushes and weeds from our boggy bottoms! I am at present a *slave* in a dry-goods store in Market street, but shall be free in the spring, when I will ascertain if *agriculture* will not pay for capital expended, as well as *trade*.

J. D.

Philad., June 20, 1841.

BE indefatigable in your honest pursuits—you will always obtain a *part* of what you seek; and the first success, however faint, will give you courage in your farther efforts.

For the Farmers' Cabinet.

The Borer.

In the Farmers' Cabinet of the 15th inst., there is a valuable article by S. Rhoads, Jr., on the depredations committed on fruit trees by a species of worm called the Borer. When I purchased the farm on which I live, some 25 years past, the apple-trees in the orchard were much infested with them; some were dead, and others in a decaying state. On discovering the cause, I found that unless some effectual remedy could be applied, there was great danger of losing a valuable young orchard, and being altogether a stranger to the practice used, if any there were for their extirpation, the plan I adopted was to remove the dirt, dead bark, &c. from the parts affected, which were readily discovered by the excrements the borers worked out, and then forcing a piece of very tough wood, made so as to penetrate their abode, several times back and forwards, until they were killed; if any chanced to escape, it would be apparent in a day or two by their excrements being worked out afresh. By annually, or oftener, if necessary, pursuing this course, I so effectually destroyed them, that I have not been much annoyed with them for many years. The most effectual preventive that I have tried is, to keep the ground for a few inches round the tree entirely clear of all rubbish at all seasons, not suffering grass, loose bark, or clods of earth to touch the tree; for where there is no dwelling-place, there will not be likely to be any lodgers. By pursuing this plan, I find but little injury to my trees, and it also saves them from being eaten by mice, which often do much damage to young orchards when surrounded by grass or weeds. I do not entirely agree with my friend, S. Rhoads, that it is best to have the trees planted so shallow as to have "the roots bare winter and summer;" as far as my experience goes, I have found the borer more destructive and much harder to eradicate when entered at the junction of the root with the stock, than when they have taken up their abode a little higher, where there is not so much unevenness of wood and are more readily got at. I am aware that very shallow planting is all the fashion with nurserymen, and perhaps the trees may grow as well or better for a season, but most people want them to last a while as well as grow. Farmers generally find it not only expedient, but necessary, frequently to plough their orchards, and if done where the trees are planted so shallow as for the roots to be bare or nearly so, they are generally much injured thereby; and after a long north-easterly storm, and the ground becomes soft, the wind suddenly shifts to the north-west and prostrates our trees, or so nearly that they are not worth retaining; then, if not removed, they soon become cankered and die. I have tried with good success, in several instances, the hauling of a cart-load of earth around a pretty large apple-tree that appeared fast declining, raising it around the trunk some 6 to 12 inches; and in one instance I think I saved a large valuable apple-tree by putting a few bushels of lime ashes around its trunk. This was done several years ago, when the tree gave strong symptoms of rapid decay, but is now in a healthy state. Have others tried either of these plans? and if so, with what success? Let the result be known, whether favourable or otherwise.

Possibly what I have written might not be considered of sufficient importance to occupy the columns of the Cabinet; yet, if friend Rhoads sees it, he may take some hints from it which may be of use when he again appears in the Cabinet, which I hope he will ere long, as I am very friendly to the propagation of good fruit.

A Montgomery County Farmer.

6th mo. 25th, 1841.

P. S. The piece in the last Cabinet signed R, on Soiling Horses, although satisfactory as far as it went, would have been more so if he had given us his opinion on the comparative ability to perform daily hard work by his practice, as compared with feeding them on good hay. The value of many communications is much lessened by not going sufficiently into detail, so as to enable the reader to judge of the comparative advantages the system or practice recommended may possess over former ones.

For the Farmers' Cabinet.

Stock-Farming.

Mr. Editor,—It would appear that some one had thought of and put into practice the plan of stock-farming which your correspondent James Neal proposes for his adoption at page 317 of the Cabinet, three years ago; for I yesterday saw in the streets of Philadelphia—whither I had gone with butter, a distance of 20 miles, and could obtain but 15 cents a pound for it—three of the prettiest two-year old steers that I ever clapped eyes or hand upon, and they were such a cross as he proposes, namely, one dip between the Durham bull and the East-country cow, sleek as a mole and fat as butter. Now, only calculate the value of such fat small beef in the market at this season of the year, before the coming in of larger beasts, and add to this the difference of—Franklin says—10 per cent. between "will you buy," and "will you sell,"

but which I put at 20 per cent. — and strike the balance of profit and loss between this system of farming and that which I have followed for many years. I vow it is ridiculous even to think of it.

While I was looking over these handsome steers, I could but ask myself, supposing they were three old cows that had been fed fat for the butcher, even at the same expense and labour, what would be their relative value? which I leave your readers to fix, after the trouble of finding a market for them. Now, I mean to go into the same plan of stock-farming at once, and shall therefore thin off my dairy cows, many of which have seen their best days; but you will not catch me *making* beef of them; I will never undertake that labour, but dispose of them to those who are more fond of hard work; and purchase with the money young cattle, which will *make themselves;* and if I give two for one, I know who will in the end reap the profit. I have heard there has been a proposal to introduce into this country the Scotch Kyloe breed of cattle, for the supply of fat beef in the market at this season of the year; but to those who have seen two-year old animals of this particular Scotch breed, and have had opportunity to compare them with those of the breed here recommended, there will be no longer a question as to the expediency of such importation; in a single "dip" with the Durham or the Devon, will be found all that can be desired, with an early maturity that sets all competition at defiance.

The engraving of the bull PATRIOT, in your number for June, is splendid; and the accompanying remarks from Youatt's work, are highly interesting, as particularly elucidatory of the plan proposed for adoption by your correspondent: the weights and prices of the two-year old thorough-breds there enumerated would, if not vouched for by such testimony, appear bordering on the marvellous — but I intend to put them to the proof by experiment. I have a neighbour who will, in all probability, join me in carrying out the plan recommended by J. Neal. We should, therefore, have to purchase a first-rate bull for our use, and perhaps the use of the neighbourhood around us. Do you know of any person who has such an animal to dispose of, *on decent terms?* B.

June 26, 1841.

"ONE load of manure housed, is worth two loads which are left out to be drenched by the rains, and to undergo the action of the frosts. It will pay as well to house our manure as our cattle, and those who have no convenient place to put it, should build temporary sheds."

For the Farmers' Cabinet.

Cows, before and after Calving.

MR. EDITOR, — A youthful writer in the New England Farmer has the following judicious remarks on a subject that has obtained but little consideration from older and more practised hands. True it is, that to the rising generation we are to look for *observation.*

"My father's practice until last autumn was, to feed his cows for a short time before calving higher than they had previously been fed, in order to have their bags well filled at the time of calving, when it was his practice also to give them warm water thickened with meal. The consequence was, this extra feeding caused the udder to fill too soon, and the milk continuing to press in, produced inflammation, and the cows were much troubled with hard and swollen bags. Observing this, I last spring requested my father to try an experiment on a cow that the year before had given us much trouble, by *reducing* the quality of her food, instead of *increasing* it, and the result was, she calved before her bag was full. At first she gave but little milk, but in a short time her milk increased, and the udder remained soft and pliant. We have had no trouble on this score since, except with a heifer which calved about the first of July, when the grass was abundant; and this would probably have been prevented, had she been fed at the barn for eight or ten days with hay before calving, and she would then have been saved much pain, and we much trouble. This subject has received but little consideration; but who can tell what effect one week of pain and suffering, arising from an inflamed udder, might have upon the health of the cow, and the quantity and quality of the milk during her whole life after?" Q.

For the Farmers' Cabinet.

Broad-Leaved Plantain.

IN the catalogue of noxious weeds, there is none more insidious in its approaches, and repulsive of valuable vegetation, than the *Broad-leaved Plantain.* This pest to grass fields, owing to its medicinal qualities, appears to have been formerly indulged in the immediate vicinity of the homestead: hence its seeds have been borne off, attached to the moistened shoes or feet of every one who came in contact with them; and by these means they have reached the barn and dairy yards; and then, having been dropped in the manure, have been carted, with that precious substance, and spread over the fields: hence, after maturing, they are again transferred with the crops to the barn and dairy yards, as well as being conveyed from place to place,

in consequence of their adhesion to the feet of every description of farm stock. From this receptacle they are soon disengaged and ready for fresh vegetation, and the propagation of their seeds. Thus this execrable plant almost imperceptibly spreads over a whole farm, be it large or small. Avoided by every animal at any stage of its growth, when once in even partial possession of fields or meadows, it will be found extremely difficult to eradicate. It sets at absolute defiance every instrument or application, excepting the plough, hoe, or spade. The wild-carrot, daisy, narrow-leaved plantain, ten-o'clocks, and garlic, are sufficiently injurious and troublesome; but these can be kept down by grazing; not so with the *Broad-leaved plantain*—nothing short of iron or steel, so far as the writer's experience goes, will subdue it, and then the operation must be performed *repeatedly*, and with much care.

It is respectfully recommended to the farmer to keep a vigilant eye on this *detestable weed*, to attack it on its first appearance, and in every stage of its progress strive to arrest it; otherwise, he will sooner or later discover that this pest alone, is worse than "thorns and thistles."

Chester County.

June, 1841.

For the Farmers' Cabinet.

Useful Recipes.

Mr. Editor,—I have been so much pleased and instructed in reading your interesting journal, that I cannot withhold my approbation of the many truly valuable communications which from time to time appear therein, and feel it a duty to add whatever useful information may be in my power for the benefit of my brother farmers, many of whom are frequently deterred from doing thus, from the fear of inability to dress their ideas in such language as may be acceptable to your numerous and intelligent readers—such, I may say, being my own case,—but hoping the following remarks may be of use to some of our friends, I am induced to offer them to your acceptance, should you think them worthy an insertion in the Cabinet.

I have been engaged in rearing horses for the market for several years, and have never had a case of the botts amongst my stock—presuming the reason is, that I salt my horses several times a week during winter and summer; while some of my neighbours, with a much smaller stock, are occasionally losing a horse from that disease, and I believe my security lies in perseverance in the use of salt as a condiment, thereby strengthening the stomach and destroying the *grub*, which otherwise might destroy the *horse*.

Many colts are annually lost by the scours or a laxity of the bowels, which disease may be cured by the following means. Take a pint of strong coffee a little over milk-warm, add two table-spoonsful of flour, and break into it two eggs; stir well together, and give the whole as a drench. Two doses are generally sufficient for the most inveterate attack, if taken in time.

Some time since, a fine young horse of mine was taken suddenly with the colic—and after resorting to all the means common in such a case, but without success, he was given over to die; when, recollecting that I had read of laudanum being a sovereign remedy in that dangerous disease, I lost no time in administering about half an ounce; and in less than ten minutes he appeared perfectly well.

With foundered horses, I generally succeed, in taking from the neck vein about a gallon of blood, and administering as a drink a quart of sassafras tea, made strong, one table-spoonful of saltpetre, and a quarter of an ounce of assafœtida; withholding any drink for five or six hours, at the end of which, should he not be better, I repeat the bleeding, taking half the quantity, and giving another sassafras drench, offering him bran or oats scalded with sassafras tea, his drink being mixed with the tea: his feet should be well cleaned and filled with cow manure. I am, sir, respectfully,

John M. Johnson.

Hannibal, Mi., June, 1841.

Manures.

The cardinal point in the management of manures is, to apply them in that state and to those crops which are the most benefited by their application. When manures are left in the yards over the summer, they should be thrown up and mixed with large quantities of vegetable mould; marsh mud, cleanings of the sides of roads, leaves, &c., that by fermentation the whole might become decomposed and incorporated: in this way the *value* of yard manure is increased fourfold, and the quantity augmented. A new manure has been created in France, by the admixture of gypsum (plaster of Paris) and urine, the mass being then dried and pulverized. It is found to be the most effective of all animalized manures, and requires caution in the use; a small quantity being sufficient to produce a most rapid and vigorous growth to every crop to which it is applied. How easily could our farmers make the experiment! it is within the power of all.—*Alb. Cab.*

No success in any science, or employment useful to mankind, is experienced without industry and perseverance.

For the Farmers' Cabinet.

Carrier Pigeons.

On the 12th day of the 6th month, (June,) 1841, R. Bison, son of Evan Bison, of Gwynedd township, Montgomery county, Pennsylvania, about 21 miles N. W. of Philadelphia, sold a pair of common tame pigeons in the Philadelphia market, to a person who was a stranger to him; six days after, one of them returned to its former owner, and on the following morning, the other returned also; and they are now the 20th of 6th month, (June,) enjoying their old place of residence, very lovingly, 21 miles from the city. During their absence, another pair took possession of their cote, and the first employment they engaged in after their return, was to oust the interlopers, and repossess themselves of their domicil; which they effected much sooner, and at less cost than a lawyer would accomplish a similar business; and they are now in the quiet, peaceable enjoyment of the premises, without, as yet, any appearance of an appeal to a higher tribunal.

Should the purchaser see this article, he can repossess himself of his property, by a call at the pigeon cote, above stated, *without* paying for this advertisement, or being at the trouble or expense of an action of trover.

The following extract from a foreign publication is appended, to show that the carrier, or express pigeon, performs feats far surpassing the above; though it is very remarkable that the *common tame pigeon* should find its way for such a distance unaided by instruction.

EXPRESSES.

"The modern system of *pigeon expresses* possesses an extraordinary interest, as well on account of its rapid means of communicating the most important events, as of the curious and laborious mode by which it is set in operation. The birds, by far the most valuable for this purpose, are of the Antwerp breed; although it is not uncommon to train the English pigeons, called Dragoons, to carry expresses.

They are trained when very young, or, as they are technically called, *Squeakers*, to fly between different towns and villages, commencing first at a space of only a few hundred yards, and so on, gradually increasing, until they accomplish the required distance. They are usually trained to fly to intermediate stations, between Dover and London, at which they are succeeded by other relays, but fly, in many instances, the whole distance from other places. The number lost in training, is immense. This trade is principally in the hands of the Jews, and the emoluments arising therefrom are very considerable.

There are a few instances in which capitalists and others having extensive moneyed and mercantile operations throughout Europe, maintain an establishment of their own, amongst whom is the Baron Rothschild, who at Dover, rears and trains his own flight of pigeon expresses, with connecting branches throughout Germany, and other parts of the continent. The establishment at Dover consists of about 400 birds, with a keeper, whose wages are 35 shillings a week.

The expense of feeding the birds is considerable, as much as 25 shillings a week being consumed at Dover, in beans alone, whilst the entire collection is supposed to have cost at least £2000 sterling. The express is sometimes tied to the middle feather of the tail, by passing a thread with a needle through the stem, but more commonly attached to the leg immediately above the spur. The rapidity of these important expresses may be estimated by the following information obtained from a trainer and proprietor. His pigeons have arrived in London with the news of the winner of the Ascot cup, in fifteen minutes;—from New Market,* in sixty minutes; and from Chichester,† bringing the winner of the Goodwood cup, in one hour and fifteen minutes.

At the Ascot races, last year, her Majesty having expressed a wish to see one of these beautiful birds, a carrier pigeon was flown, in her Majesty's presence, from the royal stand, and, to the great delight of the spectators, after indulging in sundry gyrations, darted onwards with its winged intelligence to the Metropolis." R.

June 30, 1841.

To the Editor of the Farmers' Cabinet.

Subsoil Cultivation.

Sir,—I am an old man, and an old farmer; but my eyes are not so dim, but I can see that there is much to learn in the way of a profession that has hitherto been considered either too high or too low — *which*, I cannot say—to admit of much advantage from observation or reflection; indeed it is plain that we shall be distanced in the race of improvements that is taking place around us, in farming, as well as in every other science. But the subject that has awakened me to new life and fresh vigour, even in my old age, is, the cultivation of the subsoil, by means of moving it by such an instrument as that, of which you have given us a drawing in your last, the Deanston Plough; and for the first time in my life, I regret that I was born so soon, by 20 years. Why, Mr. Editor, I can see with half an eye that the thing will work, and can fully understand how that the

* New Market, 60 miles. † Chichester, 65 miles.

operation must be as beneficial for a sandy, as for a clay soil, much of the former, as well as of the latter, having a retentive subsoil, which operates in a two-fold way to the injury of the crop, first, in wet weather, as preventing a glut of water from passing away, until it has become putrid and poisonous to vegetation, and next, in a time of drought, preventing the descent of the roots of the plants in search of moisture, which is *ever* present, even in the driest seasons, within a given distance of the surface of the earth, and where, as you say, they go for water, which by their tap roots is *pumped up* to the lateral roots, while busily engaged in search of food in the surface soil — a pretty idea that, and worth many times the subscription-money of the Cabinet.

To a want of deep ploughing might be attributed, I have no doubt, the weakness of our wheat-crops, which are so liable to be prostrated by any little gust of wind, after it has shot into the ear, and often, indeed, before that period. With a strength, equal in appearance to any vicissitude of climate, we find our crops ready to fall by their own weight, and wonder that with straw oftentimes like reed, they have the substance only of the common grasses. This is the cause, depend upon it, and it is but natural that it should be so, for I have long considered the tap-root of a plant — and which even wheat is furnished with — to act the part of an anchor, and the lower and deeper this is cast, the greater will be the power of resistance; while the secondary purpose which it serves, that of "pumping from below the moisture that is to serve as *drink*, to the *food* which is collected by the lateral roots in the surface-soil," is new to me, and finishes the picture admirably. I consider therefore, the operation of subsoil-ploughing the "ne plus ultra," as the blacking makers say — of successful agriculture, and have great hope that by its adoption, one-half, at least, of the evils attending the cultivation of the wheat-crop will be obviated, possibly the blight and rust, and even the Hessian fly, and especially *the lifting of the crop by frost.* And now, the next thing is, where can we get supplied with a plough adapted to the purpose? to meet the exigences of the times, it should not be expensive, and need not be any thing more than plain and strong. Could you not put us in the way of procuring them at some of the capital Agricultural Implement Stores in Philadelphia? I pray you take the thing in hand, and oblige Many.

A poker laid over the fire concentrates the heat of the passing smoke, and creates a draught *through the coals.*

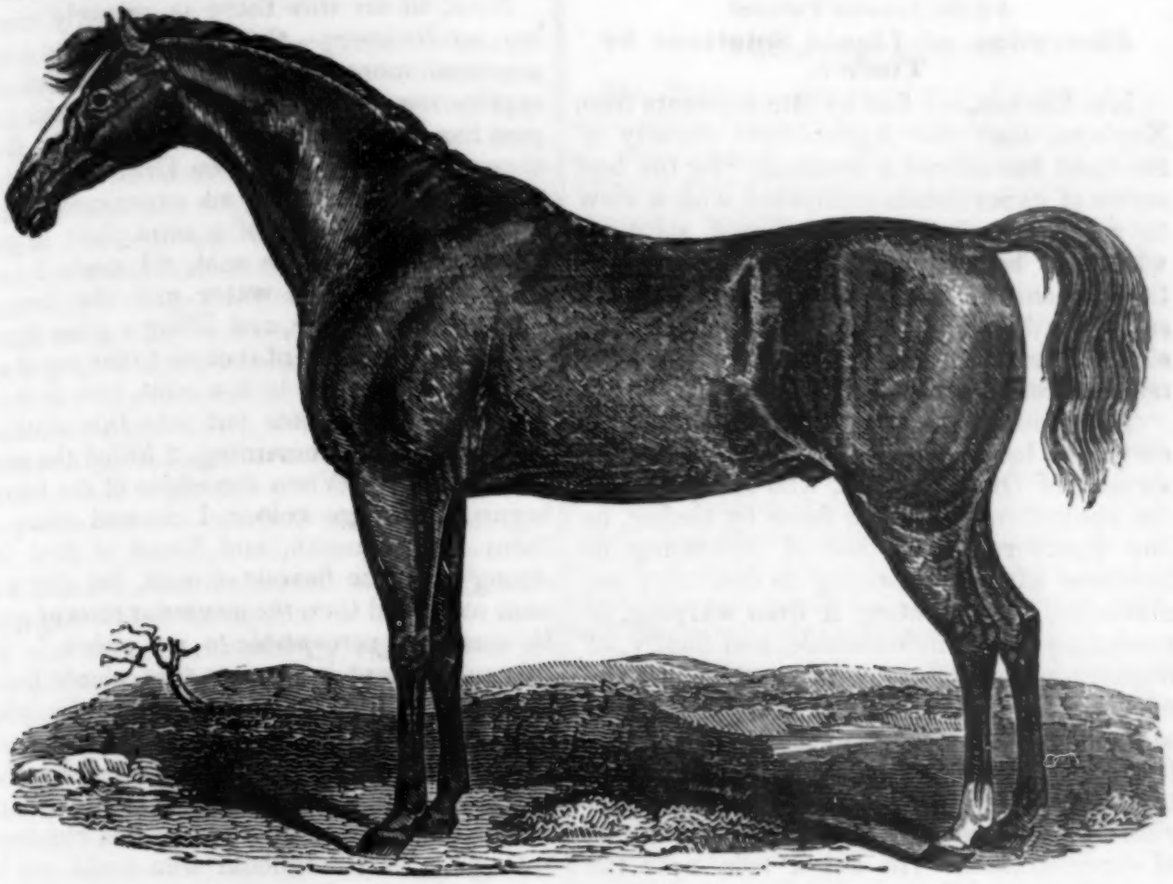
Protection against Drought.

In tillage, this can best be accomplished by frequent stirring of the soil, so as to keep it light and loose on the surface, which then serves as a nonconductor of moisture and retains it beneath, where the roots obtain a supply. On the contrary, when the earth is hard and compact, it cracks open and permits the moisture to pass away, from a great depth in a season of drought. Those who have not witnessed from experiment and observation the advantage of a pulverised surface as a protection to plants against drought, are not likely to conceive its effect to be so great as it is, although the thing is plausible and rational. Corn, and other crops that have been well hoed in extremely dry seasons, have flourished, while parts of the same fields left for experiment, were rendered barren, and the crops worthless—where the soil was frequently stirred and kept pulverised on the surface, there was a constant moisture to be observed a few inches deep from the top; but where the earth remained unmoved, it was dried to a great depth. A narrow strip of land was left for turnips and remained for a considerable time unploughed; here, the soil became dry, below the usual depth of ploughing, and even the weeds perished for want of moisture; while, at the side of this strip, weeds of the same species, growing on the edge of the ploughed land, were fresh and vigorous, and the soil was dry, only a very few inches from the surface. Where grain was sown, the earth was hard and dry to the depth of six or seven inches, while, by the side of it, where the soil was stirred occasionally, a very considerable degree of moisture was found at the depth of only three or four. On this subject, an intelligent cultivator observed, he would rather have half a dozen men employed stirring the earth to keep it loose and fine during a severe drought, than in watering the crops.

Yankee Far.

There is more than loving-kindness — there is a *superabundance* of goodness in every part of nature. The presence of some races of animated beings is a source of pleasure to others — the glittering joy of a summer day is occasioned by the general stir of happy existence. Suppose all the other creatures extinct, and man left the solitary master of the globe, what a different being would he become! how would the face of nature be changed! there would be desolation, and in the prospect the heart would sink.

A contented mind under adverse circumstances, is the purest homage to the deity.



VESTRIS,

By Whalebone, out of Varennes, dam of Albert, by Selim, 11 *years old, the property of Emanuel Hutchins, Esq., of Cregone Castle. From "Low's Illustrations."*

This noble animal exhibits almost the strength of the road-horse, with the racing properties of the finest studs in England. There is an old adage, "an ounce of blood is better than a pound of bone," and in this individual both blood and bone are united, to a degree seldom witnessed. Such blood, united with the stout mares of our western country, would produce a race of carriage-horses of the most magnificent order, as well as chargers of superlative courage and figure. And such a cross would be found equal to much of the labour of the farm—to the plough and to the cart, as well as to the stage, the carriage, and the saddle; by such, too, our old and valuable *Messenger* breed would be invigorated, and from them would proceed a class of animals superior for the farmer and breeder to all others, uniting strength, agility, and courage unbounded. Under the present head, we are tempted to select a few notices of this peculiar breed of the horse from Professor Low's book, which we think will be acceptable to every one who has a *love* for that most interesting of all animals, *the well-bred* HORSE.

The Darley Arabian was brought to England about the year 1712, and was the progenitor of some of the finest horses that ever existed in the world. He was the sire of FLYING CHILDERS, foaled in 1715, a chesnut horse with four white legs; of noble form, matchless courage, and the fleetest horse at that time in England; he ran 4 miles 1 furlong 138 yards in seven minutes and thirty seconds. He was also the sire of Bartlett's Childers, and from him descended *Marske*, the sire of ECLIPSE, who was foaled in 1764, during the eclipse of that year, from which circumstance he took his name. This most wonderful animal might have escaped notice, but for the accidental trial of his stupendous powers. He was fifteen hands one inch high, his shoulders very low, oblique, and so thick above, that according to the observation of the time, a firkin of butter might have rested upon them. He stood very high behind, and was so thick-winded as to be heard blowing at a considerable distance. In the language of honest John Lawrence, "he puffed and blowed like an otter, and galloped as wide as a barn-door." But no sooner were his powers exhibited, than every eye was set to scrutinize his form; a volume was written on his proportions, and he was admitted to possess in perfection the external characters indicative of speed. His first appearance was at the age of five years, in 1769, when he started with thirteen other horses at Newmarket. His owner, Col. O'Kelly, observing that his rider was pulling him in vain with all his might for the last mile of the course, offered, in the next heat, to *place all the horses*, which he did by placing Eclipse first, and the rest *nowhere*, —they were all distanced. For seventeen months he won every race, and no horse daring to contend with him, he finished by walking over the Newmarket course in 1770 for the king's plate. He was of an indomitable temper; his riders finding it in vain to attempt to hold him, contented themselves with remaining still on the saddle, while he swept along, his nose almost touching the ground; his full speed not being determined, since he never met with an opponent sufficiently fleet to put it to the proof. He was not only never beaten, but he was able to distance some of the best horses of his time, and the fleetest could not keep by his side for fifty yards. He was the sire of 334 winners, and died in 1789, at the age of twenty-five years.

For the Farmers' Cabinet.

Absorption of Liquid Solutions by Timber.

Mr. Editor,—I find by late accounts from England, that the Agricultural Society of Scotland has offered a premium "for the best series of experiments conducted with a view to ascertain what are the liquid solutions which, by being introduced into the sap of trees or shrubs, will preserve the woody tissue from decay, or render it capable of resisting fire, or impart to it permanently hardness, colour, or fragrance."

The attention of the directors of the society has been called to this subject by a memoir of Dr. Boucherie, who states that by the absorption of various fluids by timber, he has discovered a method of increasing its hardness without impairing its flexibility and elasticity, of preventing it from warping, of rendering it less inflammable, and finally, of imparting to it various permanent colours and odours. He found that the attractive power of the vegetable tissue was sufficient to carry from the base of the trunk to the leaves, all the fluids which he wished to introduce, provided they were kept within certain limits of concentration. He cut a tree near the base when in full sap, and plunged it into a tub containing the fluid he wished to introduce, and in a few days he found it had risen even to the most elevated leaves, and had penetrated all the tissue, except the heart of the tree; and the same result followed, whether the trunk was in an erect or inclined position—it was not even necessary to divide the trunk completely, for a cavity hollowed out at its base, or a groove made with a saw over a considerable part of the circumference was sufficient, when the cut part was brought into contact with the fluid, to allow a rapid absorption to take place. It was ascertained, that an absorption of a solution of pyrolignite of iron, containing kreosote, augmented the hardness of wood and prevented its decay, while the penetration of the wood with the solutions of the earthy chlorides and various saline matters, rendered it less combustible. Various colours have been given to wood, by causing different solutions to be absorbed in succession; pyrolignite of iron gave the wood a beautiful brown, and when it was followed by an astringent fluid containing tannin, a blue, black, or grey colour ensued; and when succeeded by ferrocyanate of potass, a deep Prussian blue resulted: and in the same way the absorption of acetate of lead and of chromate of potass imparted a yellow colour; and by the mixture of these substances, a still greater variety of shades was produced. Different odours were, in a similar manner, given to various kinds of wood.

Now, in all this there is, properly speaking, no *discovery*—the thing was known and practised more than a century ago, but the *application* of the known fact to useful purpose has been the happy thought of Dr. Boucherie. In Tull's work on Drill Husbandry, there is an account of an experiment made by placing the roots of a mint-plant in garlic-water: it is there said, "I made a very strong liquor with water and the bruised seeds of wild garlic, and filling a glass therewith, placed the top of it close to the top of another glass, having in it a mint, two or three of whose upper roots put into this stinking liquor and there remaining, it killed the mint in some time. When the edges of the leaves began to change colour, I chewed many of them in my mouth, and found at first the strong aromatic flavour of mint, but that was soon over, and then *the nauseous taste of garlic was very perceptible to my palate.*" By this experiment it appears that plants make no distinction in the liquor they imbibe, whether it be for their nourishment or destruction. I remember hearing of a person who, being about to erect a house on a spot which was overshadowed by a row of fine elm-trees belonging to a neighbour who could not be prevailed upon, *for love or money*, to remove them, made the following remark to the owner—"I should not wonder if these trees were not to shoot a leaf another year, in punishment for your unaccommodating spirit," and, strange to say, they never did! for before the next spring they had all died. On removing them, it was discovered that they had been bored with an auger and the holes filled with the black mother-liquor from a neighbouring salt-work, which had been taken into circulation, causing the death of the whole of them.

From this fact and its application by Dr. Boucherie, the most important results are to be expected. The timber, cut when the sap is in full flow, with its sap-vessels filled with medicated substances and submitted to the process of seasoning by means of fire, would be rendered as close and impenetrable as marble, and its lasting quality be preserved for ages, with no fear of worm or dry-rot. Such timber, when properly prepared, would be invaluable for the purpose of ship-building, as well as for every other kind of building to which it can be applied; while that wood which has hitherto been considered as inferior and unfit for such purposes, might be rendered almost as valuable as the best. The buttonwood, and other large and soft woods, particularly. Truly we live in an age of "improvement!" Z.

Absence of occupation is not *rest*—
A mind quite vacant, is a mind distrest.

To the Editor of the Farmers' Cabinet.

Sir,—The object of the annexed form of a subscription, is to ascertain whether there is a sufficient number of the friends of this great measure in the Union at this time, willing to lend their influence, to warrant a call of a *primary* meeting to ORGANIZE the Society. Should the indications appear favourable, a committee of the friends of the cause will take upon themselves the responsibility of naming a time and place for the meeting, of which you will be duly notified.

I fondly hope you will promptly lend your own name, and procure a few names of other friends of agricultural improvement in your vicinity, and then forward the subscription by mail in time to reach Washington by the 10th of August, addressed to the "Hon. H. L. Ellsworth, Commissioner of the Patent Office, for SOLON ROBINSON."

If you are averse to asking your friends to give pecuniary aid to this measure in its incipient state, please make use of the first part only of the paper.

I hope you will charge the liberty I take, to the zealous ardour I feel in promoting this great national object.

I have the honour to subscribe myself your agricultural friend, and humble servant,

SOLON ROBINSON.

Lake C. H., Ia., June 3, 1841.

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National American Society of Agriculture.

"To elevate the character and standing of the Cultivators of the American Soil."

The subject of forming such a society, being now agitated in the United States, we do hereby pledge ourselves to the support of such a society, according to our ability; and we earnestly hope that the active leading friends of the measure will take the necessary steps to organize the society in the course of the year 1841.

Knowing that funds will be necessary to bring this great beneficial National Institution into active operation, particularly as we hope to see a National School of Agriculture connected with the society; and also a scientific Journal worthy the proposed name and character of such an institution—those of us who have added certain sums to our names, have freely contributed those sums, and placed them in the hands of , to be expended in aiding the formation of such a society.

NAMES.	RESIDENCE.	$

SUCCESS is a constant motive to activity—every stroke of your hoe is a step forwards, and makes you approach nearer to the object you have in view.

For the Farmers' Cabinet.

Annealing of Iron.

Mr. Editor,—On inquiring of a friend the rationale of the fact mentioned at p. 319 of the Cabinet, on the annealing of iron, namely, that "the same process which hardens steel softens iron," he replied "first ascertain that the fact is as there stated — it might be another of Dr. Franklin's fishes." I therefore took a piece of stout wire, and doubling it so as to bring the ends together, placed both in the fire at the same time, withdrawing them when about a white heat, instantly quenching one in cold water, but permitting the other to cool gradually; and I found indeed it was a fact, that the end which had been quenched was so soft that it might be twined around the finger with the greatest ease, while the other remained hard and comparatively intractable.

But I found also another *fact*, which is worth remembering. In my eagerness to carry out the experiment, on laying hold of what I considered the quenched end of the iron, I found I had made a slight mistake and had grasped that which was but just below redness, by which my hand was burnt very severely. A friend present recommended me to apply yellow soap to the wound, which I did, without loss of time, and in less than one minute the pain had left, and I have never since felt the slightest inconvenience from it, although at present there are large portions of dried skin, the remains of blisters, on my hand. Now, here is another inquiry—How does the application of yellow soap operate, so as instantaneously to draw out the fire from a burn, and leave not a vestige of pain! for such was the fact. These are important inquiries, and I think you have a correspondent who could answer them if he would. The author of the very excellent article at p. 320, on "The Tumid Jaw of Cattle," who signs himself "Medicus," but who, if I mistake not, has often before interested and instructed us under another signature, would not, I conceive, find it difficult to do so; and as he has expressed himself pleased with such inquiries as lead to objects of practical utility, and willing to answer them when he has the power to do so, perhaps he would oblige us, by giving his attention to the subject, so as to furnish the answers for insertion in your next.

B.

WRETCHEDLY perverse or singularly unhappy has been he, who has lived from infancy to the grey hair, without having created a place in society, and secured some faithful bosom upon which he may lean in the decline of nature!

Fly-Proof Wheat.

J. B. Gray, Esq., near Fredericksburg, Va., gives, in a late Southern Planter, a description of a kind of wheat which is termed "Fly-proof;" it was introduced into that county by the Hon. John Taliaferro. He says, "whether in the abstract or practically, the opinions of several farmers for two or three seasons, authorise the expectation that it is fly-proof; and in one case, the ordinary wheat of the country was entirely cut to pieces by the fly, whilst this wheat, immediately alongside, escaped altogether. Of its productiveness, last season at least, three bushels were made for one of the common varieties of the country. It has the largest grain I have ever seen, and is a red-bearded wheat; from which it is argued by a miller, with whom I have conversed, that it will not make superfine flour. It admits of being sown as early as the 15th of September: my present crop is so luxuriant, that some time past I was advised to mow or feed it, notwithstanding a heavy harrow had been passed over it."

Is this the grey Cone-Wheat which Tull speaks of, which produced him one hundred and nine grains in an ear; four hundred ears in a yard; with straw so stout that the heaviest crop will stand upright; and, from the circumstance "of its being not hollow but full of pith like a rush,"—except near the lower part, where it is very thick and strong—is fly-proof? In all probability it is the same.—Ed.

The poorest and humblest man that lives, has an interest in preserving the earth's wealth and guarding her capacity of improvement. The possessions that now create a self-importance in their present owners, will soon be no longer personally theirs, and may hereafter bear the now unknown names of his children's children!

Bees and their Hives.

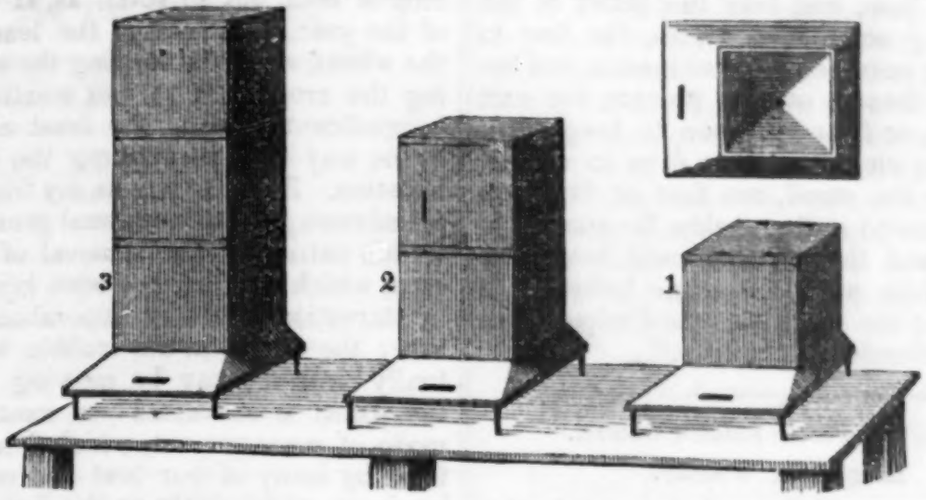
Bees seem to be governed by instinct, not by habit—therefore, if we would make use of them, we must conform to *their* modes of operation, rather than try to make them conform to *our* views. And to understand their character, we must not only observe them in their *hive*, but in the *forest*, where they select their own hive; and if there be any points that are similar in the natural hives, we should conclude that it is the effect of choice, and the artificial hive should be made to conform to those points. My opportunities for observing the bees in the forest have been limited, but I have found that for the entrance, the south and east are most frequently chosen, the west occasionally, but rarely the north; that the main part of the cavity occupied is below the entrance, and only in one instance have I known of a tunnel or hollow limb being selected as an entrance, and *never* an instance of the cavity being open at the bottom, although the cavity frequently extends far below any part of the comb. I have observed that the honey at the top of the hive is heavier and richer than at the bottom: and it is a curious fact, that when the bees are engaged in collecting honey in fine weather, the deposit at the bottom is thin and watery, but if bad weather comes on, this honey disappears, being probably worked over again and carried up; also, the honey which is contained in cells not closed or waxed over, is insipid, and probably unfinished.

The moth entirely destroyed my bees, although I tried all the different ways recommended to save them. Watching their operations very closely, I found that they commenced operations between sun-down and dark, continuing until late in the evening—their object being, to enter the hive immediately in the rear of a bee, folding their wings close, and assuming as nearly as possible the form of a bee, and following their file leader into the hive, seldom being detected, unless the bee in front turned to the right or left to allow a bee that was coming out a free passage, when, being met, he was driven back, or caught and punished for his temerity, with death; and when the intruder is seized by a bee, others will rush to its assistance, and both moth and bees will tumble together to the ground. The eggs of the moth are deposited at the bottom of the hive withinside, in some dark corner. When hives have been cracked from bottom to top, I have observed that the bees will enter mostly at the top and come out at bottom; those entering at the bottom, will frequently stop to rest before they enter, while those that enter at top, descend immediately.—*Union Ag.*

We have constructed a hive for the purpose of testing the truth of the above theory, placing the passage for entering at the top, and shall feel pleasure in the opportunity of reporting upon it occasionally—there appears "reason in the thing."

Since writing the above, we have received from the author, Mr. T. Affleck, of Cincinnati—and for which he will please accept our thanks—a most interesting pamphlet on bees and their hives, entitled "Bee-Breeding in the West," which we strongly recommend to the notice of every one who feels interested in the subject. There is no doubt the perusal of it will induce many to turn their attention to bee culture, and through it we may become a country as famous for honey as is the kingdom of Spain, where, John Bowles says, "The number of bee-hives is almost incredible; I know a parish priest who owned five thousand hives."

We copy from its pages the drawing of a hive, with very clear directions for constructing it, as Mr. A. has *not tied it up by a patent.*—Ed.



The Subtended Bee-Hive.

THE above engraving is from Mr. T. Affleck's very interesting little work entitled "Bee-Breeding in the West." The plan appears well calculated to secure the end for which it was designed—the protection of the bees from the depredation of the moth: the principle is simple, it being merely to compel the moth to *run the gauntlet* while passing up the tunnel, where it is sure to meet the bees, face to face, while passing out; and should it make its footing good, it will find itself emerging into the very heart of the hive, in the midst of thousands of its enemies, with scarcely a chance of escape. We would inquire where the work is to be procured?

ED.

Mr. A. says: "In adopting a plan for the keeping and management of bees, several important points must be considered; it must combine simplicity with convenience, cheapness with durability: it must allow the inmates to proceed in their own way; the proprietor to remove honey without disturbing or injuring the bees: it must afford them, during winter, a warm and dry habitation, and in summer, a cool and airy one. Its entrance must be so arranged as to allow the bees a free passage, and yet enable them to guard it and defend themselves from enemies; it must afford, with a reasonable degree of care, complete protection against the moth, and facilities for putting two or three weak swarms together, when they come off late in the season. All this, and more, can be attained by the use of the SUBTENDED HIVE. It is a simple and economical plan, of easy management, and one within the reach of any farmer who can handle a saw, a plane and a hammer. The boxes of which it is composed, must be formed of well-seasoned pine boards, free from knots and wind-shakes, one inch thick; they may be ten, eleven, or twelve inches square in the clear, well dressed on each side, and jointed on the edges, so as to fit close, without being tongued or grooved, and before nailing together at the sides, lay a strip of thick white-lead paint on the edge, which will render the joint impervious to the ovipositor of the moth. In the top of each box cut two semicircular holes, at the front and back, one inch and a half in diameter, the straight side being in a line with the back and front of the box, so that the bees may have a straight road in their way from one story to the other; the top of the upper box must have an extra cover fixed with screws, that it might be easily removed in case of need, so as to form a second box when required: pour a little melted bees-wax over the inside of the top, which will enable the bees to attach their comb more firmly. We will suppose the boxes thus made, to be a cube of twelve inches inside measure; in that case, the *tunnel-stand* will be made thus:—take a piece of two-inch pine plank, free from knots and shakes, 26 inches long and 18 inches broad; now, 10 inches from one end, and 2 inches from the other and from each side, mark off a square of 14 inches; from the *outside* of this square, the board is dressed off with an even slope until its thickness at the *front edge* is reduced to half an inch, and at the other three edges, to about an inch. The square is then to be reduced to 12 inches, in the centre of which is bored an inch auger hole, and to this hole the inner square is gradually sloped to the depth of an inch—thus securing the bees from any possibility of wet lodging about their hive, and affording them free ventilation. There will then be a level, smooth strip, of one inch in width, surrounding the square of 12 inches, on which to set the box or hive. Two inches from the front edge of the stand, commence cutting a channel two inches in width, and of such a depth as to carry it out on an even slope half-way between the inner edge of the hive and the ventilating hole in the centre; and over this, fit in a strip of wood as neatly as possible, dressing it down even with the slope of the stand, so as to leave a tunnel two inches in width and a quarter of an inch deep. *Under*

the centre hole, and *over* the outlet of the tunnel, hang small wire grates, the first to prevent the entrance of other insects, and the other to be thrown over to prevent the exit of the bees, or fastened down to keep them at home, in clear, sunshiny days in winter. For feet to the stand, use four or five inch screws, screwed in from below far enough to be firm; and the whole should have two coats of white paint, sometime before it is wanted, that the smell may be dissipated, as it is very offensive to the bees."

To the Editor of the Farmers' Cabinet.

Blight in Wheat.

Sir,—I have been much interested with the papers that have appeared in the Cabinet on the cause and remedy of blight, and cannot but think—strange as it may at first appear—that Col. Smith and Mr. Gowen are, in a measure, both right. That a crop of wheat, starved in the first place by the pasturage of a thick growth of grass a foot in height, and in the next chilled at the root by such a mass of vegetation, particularly in a wet season, must predispose to disease, one would think no one could deny; while Mr. Gowen's opinion, that the immediate cause is attributable to the sudden changes of the temperature of the atmosphere, either at the time of the ear leaving the envelope or afterwards, is perfectly rational, with the very plain fact before us the present season, when again a general rust has attacked the rye, which was never better grown or more clear of weeds or grass of any kind, and which evil had been foretold by every one who keeps a diary of the weather, one of my entries being, "A sharp frost—look out for Hessian and all other kinds of flies and blight." Allow me to say in passing, it is believed the general failure of the rye crop is occasioned by its coming so soon into ear in the spring—how would a spring sowing operate on its growth? It would still be an earlier crop than either barley or oats.

But the purport of this is, to say I have witnessed, in a late visit to a friend and excellent agriculturist, a mode of management which, with regard to the wheat crop, seems to reconcile both parties. There I saw the finest wheat, and the best crops of grass in the country, the former without rust, and the latter a real burden on the ground; but they are not cultivated in the usual way, the *wheat* being sown in the autumn without the accompaniment of grass, but on the first open weather after Christmas *timothy* seed is sown, and permitted to find its way into the ground by freezing and thawing; in April the clover-seed is sown, but without harrowing or any extra labour of covering—the result is, a thick crop of both, but so small as, at this season of the year, to be not of the least injury to the wheat, either by shading the soil or keeping the crop moist in wet weather, and too insignificant to be of the least consequence in the way of impoverishing the crop by exhaustion. By these means, my friend secures the advantage of an autumnal growth of grass for his cattle on the removal of his wheat crop, which crop has not been injured either by starvation, shade, or superabundant moisture; the weeds in the stubble being effectually cleared away by mowing, as soon as the wheat is harvested—a most admirable mode of management, which I see is practised by many of our best and neatest husbandmen, particularly on the farm of Woodside, near Wilmington, Delaware, where stubble-mowing is practised with the most beneficial results. J.

June 18, 1841.

To the Editor of the Farmers' Cabinet.

Dairy-Maid and Blossom.

Your intelligent but very susceptible correspondent, Mr. Gowen, has taken much pains and trouble to defend himself against an attack which is merely imaginary on his part—much good writing has therefore been thrown away. If he had had his usually discriminating powers "on board," he would have perceived that all which he complains of was neutralized by the term *it is said*; and if these words had been given in italics, every one would have perceived their bearing, and the tempest would have been allayed. As it is, however, the circumstance is not to be regretted, if the result be to bring to the test of actual measurement the lactescent powers of two of the most remarkable animals on record; and Mr. Gowen must permit me to repeat the dread words at parting—"it is said" (with what truth is another question) "Mr. Canby declines upon principle to accept Mr. Gowen's terms, as they appear to him in the questionable shape of a bet."

Mr. Gowen's friends consider that he has acted honourably, and with perfect fairness in the business, and no one more heartily concurs in that opinion than does

Correspondent.

June 21, 1841.

A pack of wool is 240 lbs. This quantity, made into broad-cloth, will employ 58 persons one week, who will earn 19 pounds 8 shillings sterling. A pack of long combing wool in fine stuffs, will employ 158 persons one week, who will earn 33 pounds 12 shillings sterling. The same quantity made into stockings, will employ 150 persons one week, who will earn 55 pounds sterling.

The Use of Flowers.

God might have made the earth bring forth
Enough for great and small;
The oak tree and the cedar tree,
Without a flower at all.
He might have made enough, enough
For every want of ours,
For luxury, medicine and toil,
And yet have made no flowers.

The ore within the mountain mine
Requireth none to grow,
Nor does it need the lotus flowers
To make the rivers flow.
The clouds might give abundant rain,
The nightly dews might fall,
And the herb that keepeth life in man,
Might yet have drunk them all.

Then wherefore, wherefore, were they made
All dyed with rainbow light;
All fashioned with supremest grace,
Up-springing day and night!
Springing in valleys green and low,
And on the mountains high,
And in the silent wilderness,
Where no one passes by?

Our outward life requires them not,
Then wherefore had they birth?
To minister delight to man!
To beautify the earth!
To comfort man—to whisper hope
Whene'er his face is dim,
For whoso careth for the flowers,
Will care much more for him?

Savan. Repub.

Management of Small Farms.

Many small farms in the county of Armagh, Ireland, which would not produce sufficient food for the support of their wretched tenants, have been made astonishingly productive by the new system of rotation, the green-food and soiling system, which might be adopted by the poorest individual on the most inconsiderable plot of ground. As a proof that it improves the land, whilst at the same time it increases the stock, we instance, first, the farm occupied by John Hogg, of the townland of Dunegaw; it consists of *ten acres* of a light gravelly soil, scarcely nine inches deep, which is in consequence easily worn out. The occupier was formerly unable to pay £4 sterling a year for the whole lot, and he was always in arrear with his landlord and in debt to his neighbours, striving in vain to exist on a miserable pittance. The feeding for his cow occupied three acres of his land, and the produce of the remainder was so scanty and of so bad a quality, that the butter produced by the cow, and even the refuse milk, had oftentimes to be sold to make up the deficiency; and thus the poor man with his family made but a most precarious livelihood, housed in a wretched hovel, scarcely fit for a human being to enter! He has now adopted the green-food and soiling system, and the change is wonderful, although three years only have passed since he commenced it. He says, he was in such wretched circumstances that he was on the point of emigration, but having got encouragement from Mr. Blacker, (the person who first introduced the new system,) he had followed his advice, and his farm was now under the four-course rotation: he has now two cows and a horse, a cart and a plough; owes no rent, although he was before always in arrear; has bought some land, and is in the way of doing well; the new system keeping himself and family *always busy*, and paying them well for their labour: he was formerly obliged to pay as much as £7 a year for potatoes for his family, and he now has £3 worth to sell, *owing to the manure from his green crops.*

Michael Clarke, near Hamilstown, tenants a farm of *three acres*, upon which he has introduced the green-crop and soiling system, and has worked wonders. He says: "When Mr. Blacker first came to my house, I had fallen into arrears; distress of mind and ill health, which this brought on me, had driven me to a state of despondency, and I did not care what became of me—I was in despair, and my family in misery around me. He told me he would help me, if I would do as he directed me, and assured me the place would be worth having, if it got justice. I did not believe what he said, but as he was so kind, I promised I would take heart again, and do as he should direct: accordingly, Mr. Bruce came and pointed out what was to be done; I got up my spirits, and my health got better: Mr. Blacker lent me a cow, when I got clover to feed her. The first year I was able to pay nothing, but he saw I was doing my best, and he did not press me; the next year I paid a year and a half's rent, the one after I paid a year and a half, and the year following I paid two years' rent, and now I expect to pay all off and have my cow and my pig to myself! I have a new loom besides; all my ditches are filled and levelled, and the *whole farm* (three acres!) is in good heart. My health is better, and I am in the way of doing well; I have meat for myself, meat for my cow, and meat for my family, all provided for the next twelve months, and it is long, indeed, since I was able to say that before! I thank God and his Honour (Mr. Blacker) for all these comforts, and I have nothing more to say."

By this plan, a farm of fifty acres is made to produce far more than one of one hundred, and there cannot be a doubt but that the green-crop and soiling system would enable Ireland to support three times her present number of inhabitants.—*Quar. Jour. Ag.*

There is one way, and *but* one way to make our agriculture what it should be, and that is, *to employ more* capital in it.

To Subscribers.

With the present No. the 5th volume of the Farmers' Cabinet closes. The five volumes, neatly bound and lettered, forming an important register of events, as also a book of reference to those concerned in the cultivation of the soil and the rearing of live-stock, may now be obtained by application at the office of the Cabinet, 50 N. 4th street. Those who wish to complete their sets, may be supplied with any of the back numbers by forwarding to the publishers the numbers which they have on hand, when the volumes will be made up, and bound and lettered, at 25 cents each.

It has been the desire of every one engaged in the publication of the Cabinet, to render it worthy the notice and recommendation of its subscribers, and to redeem the promise made at the change of its proprietorship, to spare no expense to make it a work "creditable to the state and the country." How far they have succeeded, its readers are best able to determine; but it might be observed as ground of hope that the effort has in a great measure been accomplished—the state of Pennsylvania has still but one agricultural work published within her borders—the Farmers' Cabinet is yet the only periodical in the state devoted to "Agriculture, Horticulture, and Rural Affairs," while the adjoining states, and others more remote, have many that co-operate with us in furtherance of the general object. To the proprietors and publishers of each and all of these, we offer the right hand of fellowship, and tender best wishes for the success of our common cause.

The first No. of the 6th vol. of "The Farmers' Cabinet and American Herd-Book," will be published on the 15th of August, and we would entreat our friends to use their endeavours to increase its circulation, if they find it deserving their regard. In common with our fellow-labourers in the same field, and in other sections of country, we have too much cause to complain of the remissness of some of our subscribers in the article of *prompt payment*, according to the terms of subscription; and should be glad, could we discover some mode whereby they would be induced to take the justice of our requirements into their consideration, sensible as we are, that nothing more is necessary to cause them to act promptly in settling up their accounts. We would remind them that postmasters have the privilege of forwarding subscriptions free, by signing the letters covering the same, with their own names written in full, on the outside.

To our numerous correspondents we owe, and will they accept, our grateful acknowledgments.

7th mo. (July) 15, 1841.

We have received the first quarterly number of The Orchardists' Companion, and commend it to the notice of every orchardist and agriculturist throughout the Union. It is a splendid work, the drawing and colouring of the fruit of surpassing beauty, and of the highest character. The number contains 12 illustrations, viz —4 apples, 3 plums, 3 pears, and 2 peaches, accompanied with 32 pages of letter-press on superior paper, medium quarto size. The work will form an ornament to the library and the parlour centre-table; and we sincerely trust that the enterprising proprietor, who is also the painter and lithographer, will enjoy the reward which his indefatigable zeal and very superior talents so richly merit. A. Hoffy, proprietor and publisher, 41 Chesnut street, Philadelphia.

In answer to our correspondent B., we are now authorized to say, that Mr. Paschall Morris, having a descendant from "His Grace," would feel inclined to dispose of that superlative imported bull the present season. (See portrait, pedigree, &c., at page 129 of the Cabinet for Nov. last.) Application may be made to Mr. P. Morris, Allerton Farm, near Westchester.

We have received very interesting accounts of two experiments made upon the milking properties of the cow "Queen of Chester," the property of A. S. Roberts, Esq., and the cow "Bessy," the property of Paschall Morris, Esq., near Westchester; but as we hope to be favoured with portraits of these superior animals, drawn from the life by Woodside, for an early number of the Cabinet, we must defer until then, the detail of a week's milking and other particulars, which will not fail to prove highly gratifying to those who are engaged in rearing those fine cattle, the pure and part blooded Durhams.

Agricultural Exhibition.

The Philadelphia Society for Promoting Agriculture, will hold the Annual Fair and Exhibition of Live Stock, Agricultural Implements, &c., at the old Rising Sun tavern, Germantown road, on Wednesday and Thursday, the 29th and 30th Sept. next. The regulations to be observed by those contributing to the exhibition, and the mode in which sales will be conducted, with such other information as may be requisite, will be made public at an early day by the committee of arrangement. A. S. Roberts.

The quantity of rain which fell during June (6th month,) was ..... 3.114 inches.

Pennsylvania Hospital, 7th mo. 1, 1841.

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